God's Creative Forethought

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GOD'S CREATIVE FORETHOUGHT

There is being conducted today a very determined, well-organized, and extensive propaganda, the purpose of which is, as the utterances of those behind the movement express it, to "rid the world of the absurd idea of a personal God."

In October, 1925, there was incorporated in the city of New York by Supreme Court Judge Ford, The American Society for the Advancement of Atheism. This organization through its president, Charles Smith, frankly calls itself a wrecking society. They intend to destroy the Church, the clergy, and those fundamentals of the Christian faith upon which Christianity is founded. The Bible is speedily to become a forgotten Book,—in fact, these agitators tell us that they intend to see that it shall be taken from us.

They have small regard for the Person of Jesus Christ. Many of their number affirm that no such Person ever lived. Those who grudgingly give assent to the existence of Jesus of Nazareth, charge that He was a mental and moral degenerate. They, of course, ridicule the idea of an Infallible Bible, of Sin, the Fall of Man, of Redemption, of the Deity of Christ, and all other basic doctrines which have been the foundation of our faith.

It looks like an impossible task for them to carry out their wrecking program according to schedule, but they count, and not without reason, on the apathy of believing Christians, and on the great inroads which Modernism has made on the tenets of orthodoxy.

It is well frequently to remind ourselves of the abundant and irrefutable evidence everywhere around us, of the loving forethought of God, the Creator, in bringing into being all the innumerable wonders of earth, sea and sky. These show indisputably, that design is constantly to be seen. If there is design, there must of necessity be a Designer behind the design. If it can be proved that there is a personal God, the arguments of the atheist become weak and foolish.

To the orthodox Christian, our God is a loving Father, interested in the welfare and happiness of His children whom He has created. We believe we have seen many undoubted evidences that He has thought and planned for us. When the work of creation was planned in His infinite mind, He determined that the climax of all His creative activites should be man, for him everything was made "that is made."

The 19th Psalm tells us that "the heavens declare the glory of God, and the firmament showeth His handiwork." The created universe testifies to the glory of Him who made sun, moon and stars, as He scattered into the depths of illimitable space all the countless myriads of heavenly worlds, from His omnipotent hand. He gave these worlds their exact orbits in which they were to travel, and beyond the bounds of which they were forbidden to go.

The earth on which man is found, is one of the smallest orbs in the skies, yet here it has pleased God in His infinite wisdom, to work out an inconceivably amazing plan for the redemption of a lost and sinning race of humans. Whether life as we know it, exists on any other planet or not, a study of the conditions surrounding the earth, seems to show that these conditions are not the result of chance but of design.

As a very humble unit of the solar system, our world is dependent on the sun for heat and light, without which life would be impossible. The earth is distant from the sun approximately 92,000,000 miles. Is there any significance in this distance? If we were 192,000,000 miles away from our source of heat, we should be all frozen to death speedily. If we were much nearer than at present, we should be consumed with the solar radiations. We find ourselves, fortunately, at just the right place in space in order to derive the necessary heat to sustain life.

The earth revolves on its axis once in twenty-four hours, giving us 12 hours day and 12 hours night. This proportion has been proved just what mankind needs. The darkness is as necessary as the light. Too much darkness, or too much light alike would be fatal. How does it come that this rate of motion on its axis happens to be exactly suited to our requirements, unless it has been so planned? Can it be chance?

Our movement around the sun is completed in 365 days, 9 hours, 6 minutes, and 6 seconds. The seasons pass in regular rotation, spring, summer, autumn, winter, their length caused by our speed of motion along this solar path. How is this, unless God is responsible?

The earth is not vertical but is tipped at an angle of 23½ to the ecliptic. This strange position is responsible for our climatic conditions. How was the earth given this peculiar tilt?

Again, how are the planets and innumerable suns and stars in space kept moving at an incredible but uniform rate of speed, if not held in the grip of some Omnipotent Hand? The question asked by God of Job,—"Canst thou bind the sweet influences of Pleiades?" solves the problem for the devout believer. The even influence of this great group of seven stars, controls the movements of the entire solar system. The Infinite Intelligence which commands this mighty power is the Eternal Jehovah.

Inert matter is made up of some seventy odd elements which exist alone or in various combinations with one another. All the material things on earth are built of a few primary building materials. Atoms and electrons are the smallest conceivable portions of matter, and these few different kinds, can, by their countless compounds, be changed into a multitude of apparently unlike forms. And yet each atom is subject to definite and unvarying laws. In every chemical compound the kinds and relative quantities of the constituent elements are fixed and invariable. Each molecule of water must always contain two atoms of hydrogen and one atom of oxygen. It can have no other composition. This same principle is seen with every other compound in nature. Thirty-two pounds of sulphur, for instance, must have fifty-six pounds of iron with which to unite. Less iron would leave some sulphur untouched, more iron would mean that a portion of the latter would not enter into combination with the sulphur. And so with all elements. Can this be blind chance, or is it the product of Infinite Wisdom?

Some elements are poisonous, others quite harmless. But, the various poisonous elements exist in such small quantities that they are all locked up in harmless and useful compounds. In fact, many of the most useful compounds contain elements which, if uncombined, would be destructive to life. This is true of one of the greatest blessings and necessities of life, common table salt, which is composed of two deadly substances, sodium and clorine.

Why is it that the deadly chlorine gas is not as plentiful as Oxygen? Phosphorous is another element which would spread death and destruction in its wake, but it is absolutely necessary to the organic world. It is found in great abundance in the seeds of plants and the bones of animals, and in all fertile soils. But the form in which it is combined, phosphates, makes it perfectly safe and adapted to its designed use.

If the earth is to be stable and to remain permanently above the water of the oceans, then most of the minerals on the surface of the earth must be in combinations which will not dissolve in water, otherwise all land would soon be carried in solution into the seas. This peculiar kind of combination has been well accomplished by the great preponderance of a few elements, like silicon, aluminum, calcium, magnesium, iron, carbon, oxygen and others, which unite in harmless, insoluble compounds, giving permanence to the continents, and also forming proper soils for the growth of plants. What Law governs all this?

Without water there would be no life, and with this substance, the Creator did some amazing things. It is made up with two gases, hydrogen and oxygen. Hydrogen is the most inflammable gas known, and oxygen is necessary to all combustion. But when God combined these two, He made something which will extinguish all the fires of earth if it be in sufficient quantity.

Water is the home of countless myriads of God's creatures, and in order to preserve their lives, He was compelled to break a law of physics, which holds in regard to all other liquids. When liquids are subjected to cold they invariably condense, become heavier and sink. But while this is true of water when cooled to 4° C, at that point the law is broken and from that degree of cold to 0° C, or freezing, water expands and becomes lighter, so that it rises to the surface. If this were not the case, in winter the rivers and lakes would freeze, and ice being heavier, would sink to the bottom so that, soon, if the cold were sufficiently intense, the streams would be solid masses of ice. This would mean death to all the fish. But instead of killing them, ice becomes a beautiful protective covering for the myriads of creatures living beneath it.

Mankind breathes air which has a definite composition being made up of 21 parts oxygen and 79 parts of nitrogen, the latter acting as a dilutent. The question arises as to the reason for this invariable proportion, so excellently suited to the requirements of the race. If the amount of oxygen had been greatly increased the perils to property and to human life would have been tremendously increased, because of the destructive effect of conflagrations. Cities could not exist as fires could never be put out. If the nitrogen were increased in amount, combustion and breathing would be impossible and life would become extinct. Is this the result of chance also?

This air which we breathe so easily is found to contain a large amount of watery vapor, estimated at more than 50,000,000 tons. It is an interesting observation to know that without this water, life would be impossible. Its presence retains the sun's heat during the hours of the night when it is gradually given up. If it were not found in this proportion, no matter how hot it might be in the day, before morning arrived the temperature would be, possibly 30° or 40° below zero. Does this not look as if a designing Intelligence had something to do with it?

Earth dwellers are bearing an air pressure of 15 pounds to the square inch from an atmosphere which extends up 45 or 50 miles. It is only of comparatively recent date that this knowledge was gained. Formerly it was not known that the air had weight, but away back in the time of Job we read that "God gave to the winds their weight." How did this scientific statement find its way into the Bible so many centuries ago unless God, the Master Scientist of the universe put it there? And why this exact pressure of 15 pounds? This happens to be exactly suited to our capacity and our need. Is it mere chance?

There is an interesting relation between inanimate matter, and plants and animals. The Genesis Record affirms that matter came first, then vegetables, then animals. It is strange that the human writer should get this order just right unless he had an Informant. We now know that all flesh is made from about 16 elements, which are identically the same as those found in the dust beneath our feet. Vegetables are able to absorb and derive sustenance from these lifeless chemicals. Animals cannot do that but must live off the plants, while man has both for his food. The Creator is the great Economist and nothing in Nature is ever wasted. One of the products of the combustion of plants is oxygen, which is necessary to man, but man excretes through the lungs a poisonous gas which, unless somehow consumed, would endanger life. At this point the plants enter and eagerly take up the Carbonic Acid gas which to them is food. This remarkable adaptation would seem to point to a carefully worked out plan. But, a plan never makes itself!

When plants and animals decay, they give back to the air and soil the material of which they are composed, usually in such forms as to provide food for the plants. So, the same matter may enter, again and again, into the constitution of countless individuals.

Many flowers are dependent for their fertilization on certain insects, while many of the latter are equally dependent on the plant for their continuing life. The insects seem to be infallibly guided by an unseen Intelligence as they carry out their destined duties, not knowing how or why. Surely a multitude of these wonderful adaptations point unerringly to a Supreme Power.

Can it be imagined that all the gorgeous beauties of sky and sunset, of cloud and evening star, have come from blind chance? Can evolution account for the rich and amazing colorings of flower, insect and animal? How account for mind, and spirit, and the universal instinct to worship the Unknown, qualities which man alone of all creatures possesses?

The animal kingdom presents many remarkable instances of design. Certain animals possess powers which cannot be accounted for by any known evolutionary process. The surprising instincts which animals possess are necessary to the life of the animal. Without them they would speedily die. Evolution affirms that these powers have been developed gradually through millions of years. That is, there must have been a period in the life of the animal when it was without that which is now indispensable to it. How then, may we ask, could the individual sustain itself? It must inevitably have died, and with it, the entire species would have been obliterated. The first animals then must have had the powers of modern relatives. If that is true, these powers or instincts must have been conferred upon them by the Creator. How else could they acquire them?

In the vicinity of the island of Fiji, there lives an annelid worm known as the palolo. This little denizen of the Pacific Ocean lives about six feet below the surface of the water, and attaches itself to the coral rock, never leaving this submarine home for the entire period of its existence, which is one year.

Sharp on the stroke of midnight at the last quarter of the October moon, each year, it suddenly loosens itself from its hold on the rock, and with countless millions of its fellows, rises to the surface in order to engage in the act of reproducing a new palolo. This is accomplished by the process of budding or the appearance of slight protuberances from the outside of the body, the process taking from midnight to 8 o'clock in the morning, when the new individual is complete and sinks down to attach itself to the same old rock.

The natives know when this event is to transpire because the little annelid worm keeps astronomical time, and is never ahead or behind schedule. The fishermen and ready with their nets and a good catch of this edible sea-dweller is always assured.

Where does this palolo keep its alarm clock, and who taught it to know when midnight strikes? Can evolution possibly explain such an amazing performance? The only satisfying solution is that God gave the knowledge to this creature of His.

A tiny aquarium fish, phyrrilhima filamentosa, exhibits a very reamarkable series of actions which require some explaining by the materialist. This fish having laid its egg, is not satisfied that the bottom of the bowl is a safe place to rear its young, so proceeds to deposit the egg above the surface of the water about one and a half or two inches, on the side of the glass.

Knowing apparently, that this egg must be kept moist otherwise it will surely dry up and die, it adopts a most ingenious method of accomplishing this object. As it swims about, constantly on the move, it gives its little tail a vigorous but very accurate flip which results in a drop of water being deposited on the egg. With great precision it repeats this act every few seconds, keeping up the performance for about four days when the egg hatches out and baby fish slides down the side where it is warmly welcomed by the fond mother.

Who taught this little animal the knowledge necessary for this amazing series of actions, all apparently the results of intelligence? Evolution, certainly can not be given the credit. No—the Intelligence responsible for this, is the intelligence of the Creator who, at the moment of creation, gave this marvellous instinct to His creature.

Another little creature which offers an insoluble puzzle to the materialist is a certain variety of wasp that performs some wonderful feats, in its ordinary routine of work for its unborn children. This wasp builds its home underground by laboriously excavating a few rooms, perhaps three of four, in itself an almost herculean task, when one considers that the work consists of carrying tiny grains of sand and dirt up through the special opening provided with a trap-door arrangement so as to provide safety and privacy for the busy mother.

This devoted parent knows that its tiny offspring, when hatched, must have, for its food supply, living meat! Nothing else will be accepted, and this curious appetite presents a formidable problem for the wasp to solve. But while preparing the home for its babies whom it is destined never to see, it has not forgotten to look for the proper rations, and on a neighboring vine, in the person of one or more fat and succulent caterpillars, they are found.

When the hidden rooms are completely ready, the wasp is confronted with a most delicate surgical operation, requiring a precise knowledge of anatomy and the possession of inconceivable surgical skill, along with the necessary tool of the most delicate description. The caterpillar must be completely and instantly paralyzed, but not killed, by the very first attack. The attacker goes up to the unsuspecting caterpillar and with a lightning-like thrust of its tiny lance, penetrates one of the nine ventral ganglia, or nerve centres which are to be found along the abdominal wall of the crawling victim. These nerve-centres are only of microscopic size, and the anatomical instinct, and operative skill which enables it to make helpless its helpless opponent at the first stroke, is, in many ways, one of the most striking phenomena in all nature. Not content with one sword-thrust, it proceeds to puncture the remaining eight ganglia, until there is scarcely a movement visible. Then the living meat must be transported to the distant home, necessitating the exhibition of amazing strength, as the little insect tugs, pulls, and pushes the caterpiller along home. When it is safely dropped into the room where it is to be needed, the mother wasp displays another bit of inexplicable wisdom.

The head of the caterpillar contains, of course, the vital organs, which, if eaten, would immediately result in the death of the necessary food, and the consequent annihiliation of the infant wasp. The mother, apparently sensing this important fact, never lays its egg on the head but always back on the tail end. In due course, after the mother has departed, leaving the egg to bring forth the baby it will never see, the larval wasp is hatched, and finding its food directly beneath it, takes an ample bite of the caterpillar, still living but helpless, and when the entire immature butterfly is consumed, the larva or worm which is to develop into the fully-developed wasp, goes into the next or pupa stage of its life history, all its wants having been supplied by the splendid work of its unknown mother.

Is it possible to conceive of these wonderful powers as the product of any evolutionary process? In that case, there was a time when the mother wasp knew nothing of anatomy or surgery. If that is true, what would become of the wasp when it attemped to paralyze its meat supply? There is but one answer. The wasp would be killed and the entire race of wasps would be annihilated, so that today there would be no such wasp family to be found. We are compelled to believe that the first wasp knew as much as its modern descendents, and possessed a knowledge which must have been conferred by an Omniscient Maker.

The story of the Hive Bee (Apis) gives us another illustration of the astonishing powers of insect life. When spring reawakens the sleeping earth, and the willow trees are putting on their new garments, and violet and primrose send out invitations rich with fragrance, the bee-world resumes its busy life.

The first job is to institute the usual spring cleaning of the hive and to build new combs of hexagonal or six-sided cells to accomodate the eggs the queen has already begun to lay. The workers are hard at different kinds of work, some bringing in fresh stores of pollen and honey, while others are in charge of the fast-filling nurseries.

The queen is the head of the community, not because her wits are superior, for in reality her daughters far surpass her in brains and activity, but solely because she alone has the egg-laying power and so is able to increase or restore the population. Egg-laying is her only work, all her wants being supplied by her faithful attendants.

These attendants are the worker-bees who sustain the life of the hive. They are active, intelligent, but sterile females, their reproductive organs being undeveloped. The amazing powers of these bees are among the most astonishing in all nature.

The third section of the bee community is that of the drones or males, which take no part in the work but forage only for themselves, and even then are not able to satisfy thoroughly their greed for honey. They spend much time in flying around, very energetically looking for an emerging queen, in which hope they are usually disappointed.

The diligence of the working bees is immense. They toil from morning to night, with ceaseless energy gathering precious stores of honey and pollen. In the summer-time the average life of a worker bee is said to be only about two months. It literally works itself to death. It has been calculated that in a colony of 50,000 bees, there are 30,000 workers, which, making on an average of ten trips a day will visit 300,000 flowers. About 37,000 loads of nectar are required for the production of a pound of honey.

When a flower is visited, the bee protrudes its tongue into the flower tube, sucking the nectar into its mouth, and thence into the "honey bag," where it is manufactured into honey. How this is done is a mystery which human ingenuity cannot fathom, because no human skill has been able to make honey from the sweet tasting watery fluid called nectar.

The golden pollen which the bee collects as it innocently rubs its body against the precious powder when it enters the flower, is kneaded into a little ball and carried carefully back to the hive in the "pollen-basket," a curious little cavity in the bee's hind leg. This cavity is made possible by the peculiar arrangement of the hairs on the leg.

The bees' comb made up of hexagonal cells, is one of the wonders of the world. The cells are made of thin plates of pliable wax, which comes from little pockets or manufacturing centres on the bee's abdomen. In order to start the secretion of the wax, great heat is needed, so the bees gather together in a great pendant mass, their wings buzzing rapidly all the while. Presently, "a strange sweat, white as snow and airier than the down of a wing, is beginning to break over the swarm." These wax scales are removed by the worker bees with a pair of pincers found at one of her knee-joints, and then chewed into a soft paste which can be moulded into the delicate fabric of the cells.

This comb, notwithstanding its extraordinary fragility, about one one hundred and eightieth of an inch in thickness, is able to suspend a weight thirty times as great as its own. A small block of wax is attached to the roof of the hive, and serves as foundation, from which the layers of cells grow out downwards and sideways, always leaving a gangway for the streams of bees to pass to and fro.

The shape of the cell, six-sided, is exceedingly well adapted to accommodate the body of the grub, and also is devised to prevent waste, although when occasion requires it, in odd corners, triangular, square or other shaped cells are constructed. The measurements in a typical cell are geometrically accurate, the worker achieving a precision which baffles description.

The cells are not placed horizontally, but are given a slight upward tilt, which prevents the spilling of thin honey from the tissue-like paper walls of the cell. Cells are always filled to the brim before being capped. These astonishing measurements, let it be remembered, are all taken in absolute darkness, which fact makes the wonder greater still.

A luckless mouse sometimes ventures into the hive where it is speedily stung to death by the enraged colony. Now, on the floor of their dwelling, they find a dead body, which will soon become a source of offense to the hive. The body is too heavy to be carried out, yet it must not be allowed to remain in its present dangerous position. Bees have the power to manufacture, not only honey, bee-bread, and wax, but also a substance called propolis, which is virtually a very efficient varnish. This is now called into play and thousands of bees swarm over the corpse and cover every portion of it carefully with the varnish so that when the operation is concluded, they have sealed up the dead mouse in an air-tight tomb, where it will gradually go back into its primordial dust.

The bee nurseries are interesting. Within the hive, the younger workers are always busily looking after the newborn, and attending on the queen. The newly hatched grubs are fed on a kind of pap regurgitated by the nurses from their stomachs, but in a day or two, the food is strengthened by the addition of pollen bread, and later with honey. Then the larvae spin cocoons and the workers shut the cells with little caps of porous wax. Within these walls they rest for 13 days, after which yet another generation of worker bees bite off the roofs of their cradles, and prepare to participate in the hive's busy life.

The drone cells in which the queen deposits unfertilized cells are larger than the ordinary cell, and later in the season when princess bees are being planned for, still larger cells are built, as a mark of respect to their future queen. The lying-in room must be of special size. In these "royal" cells, the queen lays the usual fertilized eggs, which in the ordinary way, would develop into sterile undeveloped female bees. But, when the grubs from these cells hatch out, they are fed upon a peculiar food, "royal jelly," direct from the mouths of their attendants, instead of the usual fare of masticated pollen. The surprising effect of this special diet is to make the grubs develop into "princesses" with fully developed female organs, instead of into workers. What the nature of this food is, no one knows.

How does the bee come by these powers? Her instincts are necessary for the propagation of the species and the life and welfare of the hive. If, as evolutionists affirm, instincts are the result of gradual development, there must have been a time when the bee knew nothing of honey gathering, wax manufacturing, cell construction, or royal jelly preparation. If that be true, the whole family must inevitably have perished. The first bees knew as much as their modern mates, and so, must have been born with qualities conferred by their Creator.

Evolution depends on heredity for the accumulation of characters. That is, parents must hand on to their children powers which they have acquired, the children in turn, passing down the improvements they have succeeded in developing. Apart from the acknowledged fact that acquired characteristics are not transmitted, in the case of the bee, the father or drone bee has nothing to transmit. He can not make honey or wax, has no pollen basket and is an almost useless encumbrance. The queen bee, too, is totally destitute of the powers which characterize the workers, just as the drone, so neither of the parents possess anything to hand down to their progeny. Then where could the worker bee get its powers, unless in the first moment of its existence from the Supreme Architect?

The animal world is full of just such examples as these, and to the unbiased mind would seem to offer incontrovertible evidence of an Omnipotent guiding Hand.

The human body, also, abounds in proofs of design. It is possible to mention but a very few of these wonders, so amazing in themselves, that they preclude the possibility of chance development. If literally, scores of structures in our bodies bear in themselves the unmistakable imprint of a Designer, who will logically deny the existence of a personal God?

When any portion of the human body is examined under the microscope it is found to be made up of many small parts called cells. These are the living bricks which compose the house in which we live.

Every blade of grass, every weed, every flower, every tree, every animal, whether it live in the water, on the land, or in the air, is composed of cells. Dead materials, on the other hand, are not made of cells, but only living things. Each cell is a bit of transparent, jelly-like material, called protoplasm. It is like the albumen of an egg, but, of its amazing powers, we know very little. The life principle which was breathed into this substance in the beginning, eludes all our investigations.

Each cell in the body has the same needs as the little one-celled animal which lives alone. But each body cell cannot take care of itself like the tiny animals which they so much resemble. The body cells in their various activities are marked by a division of labor, and yet all unite and work for the good of the whole community. Like the animals, each cell must have food, must have oxygen, and must get rid of its poisonous wastes. By their marvelous systems of coordination, it is possible for them to live and reproduce themselves while serving faithfully the body to which they belong.

The cells are divided into groups of specialists. The cells of the stomach digest the food; the bone cells build up a strong frame-work to support the body; the muscle cells move the body; the kidney cells throw out wastes; the lung cells take in oxygen from the air; and the red blood cells of the blood carry oxygen through all the body to the cells. Each cell, then, is a skilled workman doing some particuar work for the body as a whole, not an unskilled laborer trying to do all the many different kinds of work necessary to provide for its own wants.

It can be clearly understood that in order to have a properly functioning body, there must be efficiently working cells, and a fine degree of cooperation among all. If any group of cells fails in its work, all the cells must suffer, and death to the body would result.

The resemblance between the body and a community of people is striking. In any community, we have individuals of different occupations,—doctors, teachers, carpenters, blacksmiths, grocers, and milkmen. In the body, there are muscle cells, bone cells, digestive cells, and many others. In both systems there is mutual interdependence.

The carpenter builds houses for the milkman and the grocer, and these persons bring the carpenter his food. So, the stomach cells digest food for the cells of the lungs, and the lung cells take in oxygen for the stomach cells.

Tissues and organs are made up of groups of cells, in each tissue the individuals doing their own particular work. An organ is a part of the body doing a special work. In the beautiful organization and specialization of these microscopic bits of living protoplasm, and in their marvellous coordination all for the welfare of the individual, we see clearly a definite plan.

Every system in the body is full of wonders. The nervous system has for its first great work, the harmonious working of all parts of the body. Its second work is to act as the organ of the mind. Nerves are elongated threads made up of many cells connected together. Most of these nerve fibres originate in the brain, and are designed to carry messages to and from that organ. Thus messages are carried from the brain to the muscles causing them to contract, and to all glands and organs of the body, putting them all to work at their proper time. Other nerves carry communications from the different parts of the body to the brain and spinal cord, in order to keep these parts informed as to those conditions which so quickly and profoundly affect them.

Marked evidence of design in the construction of the body, is seen in the fact that all the different parts of the body are brought into intimate connection through the agency of the brain and spinal cord acting as central office. The central nervous system consists of the brain, the spinal cord and the nerves arising from the brain and cord. Twelve pairs of nerves pass out from the brain, and thirty-one pairs from the cord, putting the great nerve centers in touch with all parts of the body. The spinal cord weighs about an ounce, the brain about 50 ounces.

A layer of nerve cells on the surface of the brain, called the gray matter, has the mind in association with it. The cerebrum comprises three quarters of the brain, and is the seat of the mind, the seat of the sensations, and it originates and sends out impulses that cause voluntary movements.

The mind is the king which sits upon the throne of reason and directs the operations of the body. When the 1,200,000,000 cells which compose the outer layer of precious gray matter, are injured or destroyed, memory, reason and intelligence are lost.

Nerve messages from all parts of the body come into the cerebrum and cause the sensations of light, sound, taste, smell, touch, heat, cold, hunger, fatigue, and other sensations.

When we decide to move, the cerebrum or the mind situated somewhere in the cerebrum, is able to start impulses which cause the muscles to contract or shorten, and therefore we have the power, in health, of voluntary movement.

The little brain or cerebellum, lying behind and below the cerebrum, enables all the muscles to maintain a proper amount of contraction, and also assists in co-ordinating the muscles of locomotion. When the cerebellum is, from any cause, not able to do its proper work, the body finds it difficult to maintain the erect position, and the individual staggers about as though intoxicated. This orderly supervision of the movements involved in standing, walking and running, which the little brain exercises, appear to indicate forethought in the One who originated it.

Another important nerve center is called the medulla, lying at the back and lower portion of the brain and the upper part of the spinal cord. It really connects the higher parts of the brain with the spinal cord and the body. The greater part of the head and many of the internal organs, including the heart and lungs, are supplied by nerves that arise from the medulla. Injury to the medulla causes death by interference with breathing.

The spinal cord which is enclosed in a bony canal formed by an ingenious arrangement of the separate bones which comprise the spine, has the same functions as the medulla, conducting impulses to and from the brain, and acting also as a reflex center. Reflex actions are caused by impulses which start in nerves leading from the surface of the body to the brain. Its meaning may be illustrated in this way. If a finger is burned by touching a flame, the heat starts an impulse along the nerve fibres. This impulse passes into the spinal cord, then into the nerve leading from the cord out to the muscles. This last impulse causes the muscles to contract and the hand is jerked away, quite involuntarily.

An impulse also goes up to the brain and causes a sensation of pain, but the hand is moved before the pain is felt. Any action like this is a reflex action. This action which is necessary to quick response on the part of the muscles, and is planned to save the individual from injury, certainly points to a designing Intelligence. It works automatically and without the conscious co-operation of the rest of the body.

A flea bites an elephant's tail. The elephant is annoyed and decides to lash its tail in order to shake off the flea. What was it that travelled so quickly up along the nerve wire to the elephant's spinal cord and brain, giving the sensation of irritation resulting in the muscular contraction of the offended tail, a contraction which caused it to move with sufficient rapidity to dislodge the tiny tormentor? Was this impulse a group of electrons, a charge of negative electricity? How account for this mechanism which operates so instantaneously and so uniformly for the comfort of the individual's body? Will chance, evolutionary development satisfy our inquiry?

We lie asleep in a room with the blinds up and the sun shining outside. A ray of light filters through the window and strikes us on the forehead, but we sleep on. Presently it impinges on our eyelid, and on through the pupil to the sensitive fibres of the optic nerve. The muscles of the eyelid suddenly begin to function, we open our eyes and are awake. What caused this phenomenon? Why did we not waken when the light fell on the skin? Why are the cells of the optic nerve more sensitive to light than those of the skin? The sunlight radiates heat as well as light. Why did not out skin detect the heat and waken us? What is heat and what is light?

Ether wave vibrations of a frequency of 3,000 billion to 800,000 billion per second cause us to experience the sensation of radiant heat, when these vibrations strike the skin. Vibrations to the numbers of 400,000 billion to 800,000 billion per second falling on our retina cause us to experience what is called light and color. The vibrations are the same kind but of differing frequency. The nerves or conducting wires of the skin are not so sensitive as the nerves of the eye. Certain electric waves below 3,000 billion vibrations per second are not sensed, nor are ultra-violet and x-rays, which are caused by the inconceivably rapid vibrations in ether, amounting to 800,000 billion to 6,000,000,000 billion per second.

Similar conditions abound in our bodies. The skin, for instance, is crowded with little sense organs, consisting of sensitive bulbs underneath the skin, the terminations of these nerves or telegraph wires running from the great nerve centers. Most of the sense organs are for announcing "pain." That is, when danger threatens, a bell is rung in the brain, which, obeying the signal, sends along another wire, a command intended to prevent the danger from harming unduly the victim.

Other little bulbs, like those on the end of our fingers, provide us with the delicate sense of touch. Others feel cold, while still another set registers heat. Other little bulbs standing up like a regiment of soldiers on the upper surface of the tongue are taste-buds. The tip of the tongue especially appreciates sweet substances while the back part recognizes bitterness.

Nerves from a certain centre in the brain end in a cavity of the nose, and act as sentinels against dangers which announce themselves in the air and are detected as odors. A very strong offensive substance like mercaptan can be sensed even if there is but one part in 25,000,000,000,000 times as much air, so extremely sensitive is this apparatus. And yet, we are told that the sense of smell is degenerating!

But what shall be said of the special organ for sight, —the eye? The essential part of the mechanism of this sense is the eyeball and the nerve which goes from this to the sight-centre in the brain. The eye is the most remarkable camera in the world.

We have a roundish ball made of dense and very strong fibrous tissue. The one-sixth part which bulges out in front and which is known as the cornea, is transparent, while the remaining five-sixths is opaque.

Behind the cornea and separated from it by a watery fluid, is a wonderful curtain with an opening in the middle of it, which works automatically to adapt the eye to the intensity or the light which falls on it. Fibres of muscles are so ingeniously distributed in it that it is able almost to close the opening in a strong light, or open it wide when the light is fainter.

Behind the circular window or pupil, is another unique feature, the crystalline lens which surpasses any other lens of which we know. Fine and delicately acting muscles automatically alter its shape so that it can be focused for any distance.

The eyeball is set in a wonderful socket of seven bones, protected in this safe place by an overhanging ridge of bone, and by a line of hair, the eyebrows, which prevent perspiration from falling on the eyeball. There is a remarkable watering system to keep the sensitive eyeball continually washed free of dust and a canal to carry off excess fluid. There is also an oiling system and the ball is moved in different directions by a set of six muscles, one of which is slung over a pulley! Can these be chance arrangements?

But the most wonderful of all is the "sensitive plate" at the back of the eye-ball. Here are spread out 338,000 nerve fibres running to the brain; 3,360,000 retinal cones in which some mysterious chemical action seems to take place. But in none of these parts is vision accomplished. When the light from an object is reflected back through the window, the pupil, through the lens, and strikes the spread-out optic nerve fibres, then, there is telegraphed a message to the sight center in the brain, which interprets for us what we are looking at. So, that, the place where we actually see, is a spot where absolute darkness reigns.

The organ of hearing is scarcely less remarkable. A narrow channel, about an inch long, runs from the external ear to the drum. This canal is protected by a bitter tasting wax, which very effectively keeps off adventurous insects. Sound waves pass along this short channel, and beat upon the sensitive drum, the tympanum, a membrane of most ingenious construction. It has no period of vibration of its own but responds immediately and accurately to every sort of wave which strikes it. Therefore, it is so made that every part has a different period of vibration, and it is "damped" by a little bone which presses on it from the other side.

The pressure of air on the inside of this drum must be the same as on the outside, so this is regulated by a channel running to the inner side of it from the roof of the mouth.

Three little bones, the hammer, anvil and stirrup, convey the vibrations from the outer drum to another drum stretched across the entrance to the real ear inside of the skull. Beyond this again is a coiled shell which contains the real organ of hearing, a large number of hair cells—"organs of Corti"—interlacing with the fine fibres of the nerve or hearing, which convey the movement straight to the brain center. Could mechanisms like these possibly make themselves?

A fascinating study are the ductless guands, the most remarkable chemists in the body. They extract substances from the blood and then secrete certain "chemical messengers" which carry instructions to various parts of the body, giving definite orders which are always carried out.

Sir Arthur Keith, in his book, "The Human Body," writes concerning the substance or hormone, which is secreted in order to stimulate the glands of digestion: "The secretin or hormone, which acts as a missive, is posted in the nearest letter-boxes or capillaries (smallest bood-vessels) in the duodenal wall (wall of the first part of the small bowel at the junction with the stomach) and is carried away in the general blood circulation, which serves for all kinds of postal traffic. In a postal system where there are no sorters and which must be conducted by an automatic mechanism, letters or missives cannot be addressed in the usual way. Their destination is indicated, not by their inscription, but by their shape. The molecules of secretin may be regarded as ultra-microscopic Yale keys sent out to search for the locks of letter-boxes which they can fit and enter. They circulate around the body until they find their destination. What is still more wonderful in this system is that the letter-boxes, or we may call them locks, have a positive attraction for the key missives which are intended for them."

The chemical stuff, or hormone, secreted by the thyroid glands in the neck increases the vitality of the tissues by making them more greedy for oxygen, so that the work goes on more briskly.

Then there is the thymus gland situated in front of the breast bone, which acts to prevent the organs peculiar to the male and female, from developing too early.

Up in the head is a little and long-neglected tissue, called the "pituitary body" which controls the growth of the body. Dwarfs have an undeveloped pituitary gland while giants have too much of it.

The body is supplied with mechanisms for every emergency. It is able to adjust itself to changes in the temperature. If there is too much heat, the millions of sweat glands in the skin immedately begin to act to throw off the heat-laden fluid and thus reduce the temperature to safe and comfortable limits. The little nerves which control the size of the blood vessels in the skin and so the amount of the blood flowing through it, get in their work and the vessels are dilated. The blood floods the skin and the heat evaporates rapidly.

The operations of the human system, and indeed those also of the lower animal kingdom, which are necessary to life, are carried on quite automatically. Thus, when we lie down to sleep, the "great restorer" comes without wooing, nor do we have to plan how to keep our respiration going during the unconscious hours of the night. Our heart beats regularly 72 times to the minute, four times as fast as the respiratory act, and we need pay no attention to it. In itself it contains a marvellous mechanism which looks after the proper functioning of the mighty pump which forces the life-fluid so ceaselessly throughout the entire system.

The process of digestion presents many unexplainable wonders to the inquiring mind. We take in a great variety of food several times a day, and often speak of the mouth watering at the sight or smell of it. This is an interesting reflex action. The olfactory nerves of smell in the nose, detecting the odor which foretells the imminent approach of that which is so much desired, telegraphs the message to the brain,—"Food is coming, get ready." In response to this information, a command is issued to the salivary glands in the mouth,—important organs of digestion—to secrete immediately the juices which help to prepare the food for assimilation into the system. So instant is the response, that the mouth fills with saliva even before we see the food. Here again, we have an automatic system which the materialist will have trouble in explaining.

The microscopic cells in the salivary glands which make the saliva, are such remarkable chemical machines that no one can understand them. Although the saliva is 99 per cent water, it yet contains chemicals which begin the digestion of starchy food, converting it to a kind of sugar. In addition, they, of course, make a soft pulp of the food and so assist in the swallowing act.

When teeth and salivary glands have done their work, and the little taste buds on the back of the tongue have had their brief moment of satisfaction, the mouthful of pulp is swallowed. Keith describes the act in this way: "Swallowing seems such an easy and automatic act that we are quite unaware of the elaborate system of signals, side-shunts, and level-crossings which have to be manipulated to permit the busy traffic of the pharynx to pass unchecked."

J. Arthur Thomson puts the wonder picturesquely. He says: "The whole mouth changes. Certain sensitive spots at the back of the mouth—electric press-buttons, we may call them—give the signal that the food is ready. The muscles which closed the back of the mouth while we are masticating, relax. The lower jaw is pressed against the upper. The soft palate forms an inclined plane. Other muscles close the airways to the nose and the great airways to the lungs. The whole complex machine acts together and pumps the food into the first part of the alimentary tube, the pharynx."

And then ensue a number of things which can only be understood when we postulate a Designer who worked out the abstruse problems of the body with unerring skill.

When the food is emptied into the stomach, it begins a long and interesting journey. It has a twenty-eight foot tube to travel through, and in which it must be broken up physically and chemically before it is ready to be utilized by the system.

As one sits at the table, the sight and smell of roast beef telegraph their news to a certain nerve-center in the brain, from which a silent message of stimulation goes to the myriads of glands lining the inner wall of the stomach. The messages are multiplied when the taste buds on the tongue are tickled by agreeable sensations. The blood gathers on the wall of the stomach, and the little glands immediately utilize this fluid to manufacture the digestive juice which is poured out on the food.

But digestion is only begun in the stomach, and only a little of the food is absorbed there. The nitrogenous or protein food like flesh, fish and eggs, is broken up still further and prepared for absorption, while the sugars, starches and fats, are passed on to the next department, into the twenty-foot laboratory, the narrow, "small intestine."

The glandular chemists take the alkaline blood, and from this manufacture an acid fluid by a process which no one understands. When the acidulated food from the stomach, at the end of an hour or two, is permitted to make its exit through the valvular opening into the first portion of the small intestine, the touch of it on the walls of this latter tube, causes the intestinal glands to secrete a marvellous chemical, called secretin, and pour it into the blood. Hurrying on its way, carried by the blood stream, secretin goes straight to its destination, which is another important organ of digestion, the pancreas. Although the hormone, secretin, goes through the entire body, it acts solely on the pancres. When the chemical message is duly received and its purport understood, the pancreas at once sets to work more vigorously and empties an increased supply of digestive juice into the small intestine.

The pancreatic juice is able to dissolve and make into an emulsion, the starches, sugars, and fats, as well as the nitrogenous foods. The thick creamy fluid,—the pulped and semi-digested food, moves slowly along the bowel, at the rate of about one inch a second. The interior wall of this tube is lined not only with glands but with tiny fingers which stand out, microscopically, "like the pile on fine velvet." These fingers reach out and take in the passing food, which, by an ingenious arrangement of channels, is presently all gathered up into one duct lying on the left side of the spinal column, and carried up to the root of the neck where it is emptied into the blood stream. Once here is passes through the liver, and is then pumped round the body so that the various organs and tissues may easily select from it the nourishment they need.

The body seems to have a very efficient cafeteria system, in which the food may be imagined as loaded on a train of flat cars, each kind laid out in orderly piles so as to be easily accessible to the hungry cells. The train passes slowly but uniformly along. One set of cells are on the lookout for some sugar. They wait patiently until the load comes to them, then reach out their tiny fingers, quickly take a glance at the different assortments, fill their hands with what they require, and retire as the train-load goes on out of sight. In a short time they will require more food, perhaps starches or fats, and if their owner is functioning properly, they will find the cafeteria train coming along on time to supply their ever-recurring needs.

May we ask, how food-trains like these can be prepared and dispatched with such amazing ease and regularity, and how each individual cell in the body knows how to satisfy its wants, unless behind the work there be a Master-Workman, a central Controller or Manager who sees that the machinery is properly and accurately constructed, and kept in efficient working order?

A few hundred years ago, the blood was thought to be a very simple fluid, and not much attention was paid to it, in spite of the fact that if man lost enough of it, he invariably died. In 1629 Sir William Harvey discovered the circulation of the blood in the body. Before that date, air was thought to pass through the vessels, and the word, "artery" is derived from the Latin word, aer, meaning air. So it is only recently that we have discovered the supreme importance of the blood, but, strange to say, thousands of years ago, Moses had this information given to him, when he declared in Leviticus, "The life of the flesh is in the blood." How did this old writer, reared in the Egyptian court where as far as we know, nothing of this was known, come to make this epoch-making pronouncement, destined to be overlooked by a skeptical science which looks on the Bible as out of date and especially antiquated in its science? Will logic and common-sense permit of any other solution than that the scribe got his knowledge from one Omniscient Creator?

Even a superficial knowledge of the composition and capabilities of the blood, must prove that it has been designed to carry out just those functions which it performs with such apparent ease.

In the blood, there are myriads of small round red particles or cells called corpuscles. These little discs derive their color from a peculiar chemical by the name of haemoglobin which has a great affinity for oxygen and carries it from the lungs to the tissues. In every cubic millimetre there are about five million of these cells. In the entire body there are about twenty-five thousand trillions of them. They are formed, chiefly, in the red marrow of bones, and, after serving for a few weeks, are broken up in the liver or spleen.

Besides these red cells, or oxygen-carriers, there are in the blood a great army of defenders against germs. When bacteria gain entrance to the body, these brave fighters rush from all parts, and a battle royal ensues. These cells which are colorless, and are known as white corpuscles or leucocytes, have a summary method of dealing with intruders. They surround their enemies and engulf them. If they prove strong enough to devour the microbes, we are saved from infection, if not, illness follows.

The wonderful mechanisms of the body are never-ending source of fascination to the student. When bacteria enter, they immediately begin to produce a poison or toxin, which causes the symptoms from which the patient suffers. The blood acts just as promptly and commences to form an opposing substance to conteract the harmful effect of the bacterial posion. This is called anti-toxin, and is a chemical, which will, if given time and proper conditions, perfectly neutralize the toxin. The blood has the amazing power to manufacture a defensive anti-toxin for every conceivable germ infection.

Sir Arthur Keith, in "The Engines of the Human Body," refers to "the immense and movable armies of microscopic corpuscles which can be mobilized for police or sanitary duties. They swarm in the blood as it circulates round the body. .. . it is extremely probable that one variety of them, if not more, are really errand-boys on their way to deliver parcels or messages, and that the gland masses which are built up in and around lymph channels, serve both as nurseries for the upbringing of such messengers, and also as offices from which they are dispatched on their errands."

Without subjecting the imagination to any undue strain, it would appear that these things undoubtedly prove a definite plan to save the body from injurious infections and resulting death. If it were not for these provisions, every body would, long since, have suffered death. The enemies of the body have always existed, and if these powers were non-existent in the first instance and had to be evolved, there would have been no hope for the first animals or men, deprived of their necessary means of defense. That means that the earliest ancestors had these mechanisms in perfect working order, and must have received them as a gift from the One who brought the body into being.

The Bible makes no particular effort to prove the existence of God. That is taken for granted. The Bible never argues, it announces. It does not strive to explain the great truths on which the Christian faith is built. It simply proclaims them.

The Bible does, however, issue a bold and dauntless challenge to a skeptical science to prove it guilty of fraud, fallacy or fabrication. We read in the twelfth chapter of Job at the 7th verse: "But ask now the beasts, and they shall teach thee; and the fowls of the air and they shall tell thee: or speak to the earth and it shall teach thee: and the fishes of the sea shall declare unto thee. Who knoweth not in all these that the hand of the Lord hath done this?"

The Bible professes to be a divine Revelation from a personal God. It is the Record of God's dealings with sinful men, their Fall, and the Remedy He has provided for their ultimate restoration and salvation. It is permeated with the idea of the existence of God, in fact, that is the foundation on which it is constructed.

The Bible has never been proved to be in error in a single instance. It has proved itself a thousand times the inerrant Revelation from God Himself. A Book written with such sustained dignity and mellifluous precision, abounding in lightning-like phrases, arrows shot from the quiver of Infallible Wisdom, exhibiting the supernatural prescience of prophecy, contemptuously indifferent to the flippant insolence of a decadent skepticism, miraculously anticipating by thirty centuries the most stupendous discoveries of modern times,is not a patchwork of grotesque stupidity, incorporating a thousand mangled delusions, a monstrous travesty of Truth,—but is the flawless and exalted embodiment of Omniscience, the supreme Gift from the omnipotent Ruler and Creator of the universe.

As the result of our study, two great truths must never be forgotten,—the Eternal Father still lives; and only "the fool hath said in his heart, 'there is no God.' "